CASE REPORTS

Dissecting Aortic Aneurysm with Bizarre Neurologic and Vascular Aspects

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THE clinical manifestations of dissecting aneurysm of the aorta may vary greatly in symptomatology and objective findings but it is the neurological complications which are often bizarre and difficult to interpret. They usually may be classified[3] as due to ischemic changes of the brain, of the spinal cord, or of the peripheral nerves.

The reported incidence of neurological complications in dissecting aortic aneurysm varies with different series — between 11 per cent and 46 per cent.[1] Scott and Sancetta,[2] in reviewing the largest series (424 cases) noted that in 89 cases, or 21 per cent, there were neurological complications such as pain, paresthesias, convulsions, periods of unconsciousness, vertigo, reflex changes, and facial weakness. Paraplegia owing to involvement of the spinal cord or peripheral nerves is common. Hemiplegia is usually attributable to extension of the dissection along the carotid arteries, with a resultant cerebrovascular accident.

In the following case the patient had simultaneous flaccid monoplegia, anesthesia, and vascular embarrassment of the same extremity.

CASE REPORT

A 49-year-old Caucasian male entered Los Angeles County Hospital in emergency on Oct. 12, 1950. Although apparently in shock the patient gave the following history: He had been drinking heavily for the past ten days and admitted being a chronic alcoholic for a period of years. At 8 a.m. on the day of admission there was sudden onset of severe epigastric pain just beneath the tip of the xiphoid process. Shortly afterward the patient noticed numbness of both lower extremities, more on the left than the right, and the left leg became extremely weak. Sensation in the right leg improved, but the numbness in the left became progressively more severe and extensive, until the entire limb was involved.

Upon physical examination the patient was observed to be well developed, well nourished, sweating and slightly cyanotic. He was apprehensive but cooperative. The eyes, ears, nose, and throat appeared to be normal. There was no venous distention in the neck. Except for a few basal rales the chest was clear to auscultation and percussion. No abnormality was noted in auscultation and percussion of the heart. The abdomen was slightly tense and there was questionable dullness in the flanks, but the organs were normal to palpation and no masses were felt and there was no tenderness. Peristalsis was active and of normal pitch. Pronounced erythematous, cyanotic discoloration was present over the entire left lower quadrant of the abdomen. This mottling continued posteriorly to involve the buttock and inferiorly over the whole of the left lower limb. Blood pressure readings, recorded in millimeters of mercury, were as follows: right arm, 122 systolic and 62 diastolic; left arm, 144 systolic and 66 diastolic; right leg, 174 systolic and 88 diastolic. The blood pressure was unobtainable in the left lower limb. The arterial pulsations of the right lower extremity were diminished, and were absent in the left. The left thigh and leg were warmer than the right, despite the absence of pulsations and the discoloration. In addition, there was flaccid paralysis of the entire extremity. The left lower abdominal reflex was diminished and deep tendon and superficial reflexes of the affected limb were absent.

In fluoroscopic examination of the chest a widened aorta and a minor degree of cardiac enlargement were observed. An electrocardiogram was not abnormal. The spinal fluid was clear and colorless, and normal dynamically. Reaction to a Pandy test was negative. There were 30 lymphocytes per cu. mm. of fluid. The hemoglobin content of the blood was 15.5 per 100 cc. Leukocytes numbered 14,000, 80 per cent · polymorphonuclear cells. The blood amylase was normal.

Oxygen, sedation, and infusions of whole blood were given but the condition of the patient remained unchanged and 13 hours after admission he suddenly became cyanotic and acutely dyspneic. The veins in the neck became distended, the patient sat upright in bed, mumbled a few words, and fell back dead.

AUTOPSY

Anatomic diagnoses: Dissecting aneurysm of the aorta, with rupture into the pericardium; cardiac tamponade, due to hemopericardium; cardiac hypertrophy; pulmonary edema; fatty liver; bicuspid aortic valve; esophageal diverticulum.

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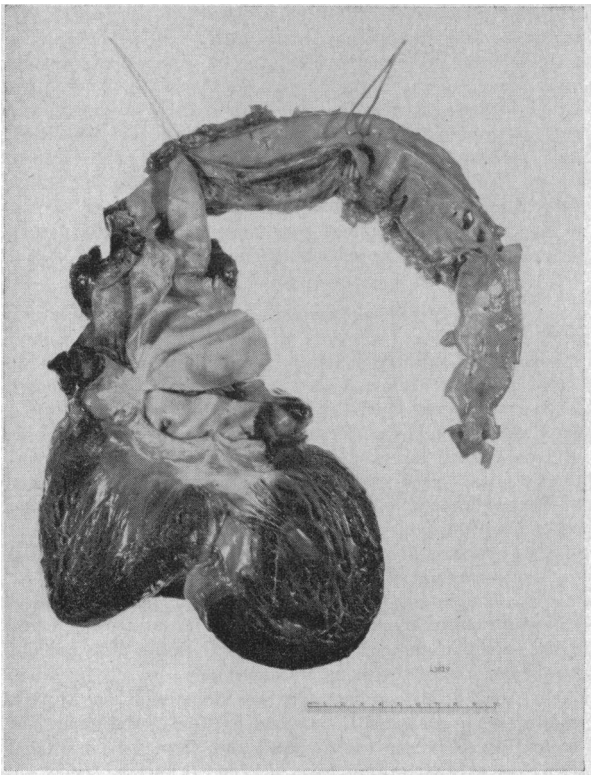

Figure 1.—Dissected heart and aorta with tear just distal to aortic valves.

Cardiovascular system: The pericardial sac was smooth and glistening, containing a large amount of dark blood. As it was opened the blood spilled, so that no measure was obtained. The heart weighed 540 gm. The chambers did not appear dilated. Except for a bicuspid aortic valve, the valves appeared normal. A transverse tear, involving all but 1 cm. of the aorta, was present 2 cm. distal to the aortic valve (Figure 1). In the serosa and enclosing this tear was a large hematoma. The tear had dissected in the media of the artery the entire length of the aorta. On the right side this dissection extended 1 cm. distally in the iliac artery. On the left side, however, the dissection ended 1 cm. above the left iliac artery. The latter vessel appeared normal. The dissection also involved 1 to 2 cm. of each of the great vessels of the neck, including the innominate, the left common carotid, and the left subclavian arteries. The arch of the aorta was buried in a large mass of dark clotted blood which apparently had come from the dissection in the main pulmonary arteries, without rupture into their lumina. The myocardium on cut surface was coarser than is normal, but there were no areas of new or old infarction or scarring. The left ventricular wall was 17 mm. thick and the right 3 mm.

Brain and central nervous system: There were no gross lesions in the brain and spinal cord or in the left lumbosacral plexus.

No significant lesions were noted in the respiratory, digestive or genito-urinary systems or in the spleen.

Microscopic: The medium of the aorta was split by gross hemorrhage and there were scattered collections of polymorphonuclear cells in the adventitia. No significant lesion was noted in the myocardium, except for moderate hypertrophy of the muscle fibers. The lungs were congested, the alveoli being partially filled with edematous fluid. There were scattered pigment-filled macrophages. The spleen and kidneys were mildly congested. There was moderate fatty vacuolization of the liver parenchymal cells, as well as pronounced congestion of the central vein and atrophy of the surrounding cells. The vessels in the interstitial spaces of the pancreas were engorged.

DISCUSSION

This case was considered to be of interest for several reasons. Neurovascular alterations were observed only in the left lower extremity, despite the dissection of the aneurysm the length of the aorta and along the major vessels of the upper extremities. Of equal interest was the sparing of the abdominal viscera and spinal cord. The monoplegia and anesthesia are best explained on the basis of ischemia of the left lumbosacral plexus, but pain was not present in the limb, probably because the blood supply was so seriously impaired as to interrupt transmission of any sensory impulses. At autopsy the plexus was dissected and no gross lesions were observed. Why the major findings appeared at such a distance from the origin of the aneurysmal dissection is perplexing and difficult to account for on the basis of pathological findings.

SUMMARY

A case of dissecting aortic aneurysm with several bizarre neurovascular findings appearing concurrently in the same extremity is presented.

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Epidermoid Cysts of the Testis

A Report of Three Cases

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THREE cases of testicular tumor containing epidermoid cysts are herein reported. In two of them the lesion was a pure epidermoid cyst—sometimes called unidermal dermoid cyst.[1, 2] Only three such cases have been reported previously. In the third case the lesion was a teratoma containing an epidermoid cyst, but it also was unusual in that the patient was a seven-month-old infant.

CASE REPORTS

CASE 1. A 55-year-old painter entered the urologic service of the Veterans Administration Hospital, San Francisco, Aug. 1, 1949, with complaint of a swollen left testicle. The patient first had difficulty with the left testicle 28 years previously when tenderness and swelling in that location for approximately one month were noted. In the two years preceding admission to hospital the left testicle had enlarged gradually but without pain except for a mild ache after heavy lifting. Five days before entry, aspiration of a presumed hydrocele was attempted but was unsuccessful and operative treatment was advised.

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